AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the

application: **(AS ON AMENDED SHEET(S) ANNEXED TO IPRP)**

1.   (original) A method of automatic repeat request, thereafter referred to as ARQ, in data communication between a sender and a receiver engaged in wireless communication with each other, wherein the sender is provided with an incoming data stream of a plurality of protocol data units, thereafter referred to as PDUs, and the ARQ procedure comprises uses of acknowledgement message, thereafter referred to as ACK, and negative acknowledgement message, thereafter referred to as NACK, the method **characterised by** the steps of:

a)-*grouping* of PDUs (405), wherein a number of PDUs from the to the sender incoming data stream are grouped into a set of PDUs, and each PDUs are given a sequence number, n;

b)-*assigning* (410) transmit power and code rate to PDUs, wherein each PDU is assigned a transmit power level value, P_k, and a code rate value, C_k;

c)-*storing* PDUs (415), wherein the PDUs are stored in a memory along with their sequence number (n), and the assigned power level value, P_k, and code rate value, C_k;

d)-*transmitting* PDUs (420), wherein the PDUs of the set of PDUs are simultaneously transmitted from the sender with their respective power level value, P_k, and code rate value, C_k;

e)-*receiving* PDUs (425), wherein the transmitted PDUs are received by the receiver, decoded and checked for errors, and PDUs not considered decodeable are recognised as not correctly received;

f)-*feedbacking* (430), wherein the receiver transmits to the sender an ARQ feedback in form of a ACK or NACK message, wherein the ACK or NACK message comprises information on the PDUs which were correctly received or the PDUs which were not correctly received, respectively;

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g)-*discarding* correctly received PDUs from memory (435), wherein the sender discards from the memory the temporally stored PDUs which were correctly received, and forms a new set of PDUs comprising the PDUs which were not correctly received.

2.   (original) ARQ method according to claim 1 **wherein** the steps b) to g) are repeated (440) and wherein the PDUs which were not correctly received in a first transmission are in a subsequent transmission retransmitted at higher respective power level values, P_k, and/or different code rate values, C_k, than used in the first transmission.

3.   (original) ARQ method according to claim 2, **wherein** in the step of assigning (410) the PDUs are assigned descending power levels with regards to their sequence number so that the PDU with the lowest sequence number is given the highest power level value;
and in the step of the PDUs which were not correctly received are given the lowest sequence numbers, and the set is filled up with new PDUs from the incoming data stream.

4.   (currently amended) ARQ method according to ~~any of claims 1 to 3~~ claim 1, **wherein** at least one of the power level values used for transmitting at least one PDU is below an estimated noise floor

5.   (currently amended) Computer program products directly loadable into the internal memory of a processing means within a sender and receiver, comprising the software code means adapted for controlling the steps of ~~any of the claims 1 to 4~~ claim 1.

6.   (currently amended) Computer program products stored on a computer usable medium, comprising readable program adapted for causing a processing means in a processing unit within a sender and receiver, to control an execution of the steps of ~~any of the claims 1 to 4~~ claim 1.

7.   (original) A system of at least one sender (510) and at least one receiver (540) adapted to be engaged in mutual wireless data communication, the system using automatic repeat request, thereafter referred to as ARQ, acknowledgement message, thereafter referred to as ACK, and negative acknowledgement message, thereafter referred to as NACK, in the data communication, wherein the sender is provided with an incoming data stream of a plurality of protocol data units, thereafter referred to as PDUs, the system **characterised by** that the sender comprises:

-grouping means (515) for grouping PDUs so that a number of PDUs from the to the sender incoming data stream are grouped into a set of PDUs, and each PDUs are given a sequence number, n, and assigning transmit power and code rate to PDUs so that each PDU is assigned a transmit power level value, P_k, and a code rate value, C_k, which grouping means is arranged to receive an ARQ feedback;

-storing means (517), arranged to be accessible from said grouping means (515), and adapted to store PDUs along with their sequence number, n, and the assigned power level value, P_k, and/or code rate value C_k;

-transmitting means (530) for transmitting PDUs so that the PDUs of the set of PDUs are essentially simultaneously transmitted from the sender with their respective power level value, P_k, and code rate value, C_k;

-discarding means (518), arranged to be accessible from said grouping means (515), for discarding correctly received PDUs from memory the temporally stored PDUs which were correctly received, and forming a new set of PDUs comprising the PDUs which were not correctly received,

and by that the receiver comprises:

-means for receiving, decoding and checking (545) PDUs for errors (CRC), and recognising PDUs which are not considered decodeable as not correctly received;

-feedbacking means (550) for feedbacking to the sender an ACK or NACK message, wherein the ACK or NACK message comprises information on the PDUs which were correctly received or the PDUs which were not correctly received, respectively.

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8.   (original) A radio communication device adapted for data communication by transmitting a plurality of protocol data units, thereafter referred to as PDUs with the use of automatic repeat request, thereafter referred to as ARQ, acknowledgement message, thereafter referred to as ACK, and negative acknowledgement message, thereafter referred to as NACK, the radio communication device **characterised by**

a transmitter unit (510) comprising:

-grouping means (515) for grouping PDUs so that a number of PDUs from a to the transmitter unit (510) incoming data stream are group into a set of PDUs, and each PDUs are given a sequence number, n, and assigning transmit power and code rate to PDUs so that each PDU is assigned a transmit power level value, P_k, and a code rate value, C_k, which grouping means is arranged to receive an ARQ feedback;

-storing means (517), arranged to be accessible from said grouping means (515), and adapted to store PDUs along with their sequence number, n, and the assigned power level value, P_k, and/or code rate value, C_k;

-transmitting means (530) for transmitting PDUs so that the PDUs of the set of PDUs are simultaneously transmitted from the sender with their respective power level value, P_k, and code rate value, C_k;

-discarding means (518), arranged to be accessible from said grouping means (515), for discarding correctly received PDUs from memory the temporally stored PDUs which were correctly received, and forming a new set of PDUs comprising the PDUs which were not correctly received.

9.   (original) Radio communication device according to claim 8, **further comprising** receiving unit (540) comprising:

-means for receiving, decoding and checking (545) PDUs for errors (CRC), and recognising PDUs which are not considered decodeable as not correctly received;

-feedbacking means (550) for feedbacking to the sender an ACK or NACK message, wherein the ACK or NACK message comprises information on the

PDUs which were correctly received or the PDUs which were not correctly received, respectively.

10.   (currently amended) Radio communication device according to claim 8 or 9, **wherein** the radio communication device is a mobile terminal for use in a cellular radio communication system.

11.   (currently amended) Radio communication device according to claim 8 or 9, **wherein** the radio communication device is a radio base station for use in a cellular radio communication system.

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